Remarks

Reconsideration of this application is requested.

Claims 1, 4-6 and 8 have been rejected by the Examiner under 35 USC §102(b) as being anticipated by Magee (U.S. Patent No. 5,265,867).

Magee discloses the following in line 66 of column 2 - line 21 of column 3:

> "A first pair of drive belts **16*a*** and **16*b*** are disposed on the signature supporting plate **12** and extend generally in the direction of travel of said signature in spaced apart relation and a second pair of drive belts **18*a*** and **18*b*** are disposed on the respective ones of the first pair of drive belts **16*a*** and **16*b*** and extend generally in the direction of travel of said signature on the sides opposite the signature supporting plate. The binding line mail table **10** further includes means for driving the drive belts **16*a*, 16*b*** and **18*a*, 18*b*** at the same speed for moving the signature **14** along the signature supporting plate **12** (see, also, FIG. 2.) As shown in FIG. 2, the driving means may include a conventional motor **20** operatively connected to drive pulleys **22** and drive pulleys **24** in a manner that will be known to those skilled in the art.
>
> As shown in FIG. 2, the drive pulleys **22** are operatively associated with the drive belts **16*a*** and **16*b*** whereas the drive pulleys **24** are operatively associated with the drive belts **18*a*** and **18*b***. It will also be appreciated that the respective pairs of drive belts **16*a*, 16*b*** and **18*a*, 18*b*** will also be trained about other pulleys such as **26** in the case of drive belts **16*a***, **16*b***, and **28** and **30** in the case of drive belts **18*a*** and **18*b***."

Magee does not disclose or anticipate the invention claimed by Applicants in claim 1, namely a lower looping belt having a mailpiece intake section that extends beyond the width of the upper belt adjacent the printing area running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form a wedge-shaped gap resulting in a soft ingest nip so that the tension of the lower belt is controlled by the elasticity of the lower belt wrapped around fixed pulleys to provide a normal force between mailpieces having different thicknesses and the upper

belt for providing a friction force to move the mailpiece into the printing area for printing. The above invention provides a mechanism to maintain the correct distance between the mailpiece surface and the print head for a wide range of mailpiece thickness. Thus, the print quality of the information printed on the mailpieces will be of high quality and will not be dependent on the thickness of the mailpieces.

Claims 9-16 and 18-20 have been rejected by the Examiner under 35 USC §102(e) as being anticipated by Coudray, et al. (U.S. Patent No. 6,431,778B1).

Coudray discloses the following in lines 36-52 of column 4:

> "In order to allow the suspension movements of the rollers **20** and **22**, the journal of each of these rollers is mounted at one respective end of an arm **25** the center of which is mounted so as to oscillate on the journal of the roller **21**, the path followed by the journal of the rollers **20** and **22** upon a suspension movement thus being a circular are centered on the journal of the roller **21**, the movements of the rollers **20** and **22** being in opposition, that is to say that when the roller **22** is lowered, the roller **20** is raised and vice versa.
>
> A spring **26** is provided to force the arm **25** in the direction in which the roller **22** is raised, that is to say in the direction where it comes up against the stretch of the upper belt **9** located in the corridor **5**.
>
> It will be observed that the roller **16** serves as a counter roller for the roller **22**, that is to say that it allows it to take up the forces exerted by the spring **26**."

Coudray does not disclose or anticipate the invention claimed by Applicants in claim 9 and those claims dependent thereon. Coudray does not disclose or anticipate a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section of the lower looping belt and the straight section of the upper looping belt form a wedge-shaped gap resulting in a soft ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt in order to provide a friction force to move the

mailpiece into the gap towards the printing area so that the mailpiece surface is substantially located on the registration plane. The above invention provides a mechanism to maintain the correct distance between the mailpiece surface and the print head for a wide range of mailpiece thickness. Thus, the print quality of the information printed on the mailpieces will be of high quality and will not be dependent on the thickness of the mailpieces. Coudray does not disclose or anticipate the invention claimed by Applicants in claim 11. Coudray does not disclose or anticipate a lower looping belt having a mailpiece intake section running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form a wedge-shaped gap resulting in a soft ingest nip so that the tension of the lower belt provides a normal force between the mailpiece and the upper belt for providing a friction force to move the mailpiece into the printing area for printing. The foregoing is done to improve the registration of mailpieces and to produce better printing.

Claims 2-3 have been rejected by the Examiner under 35 USC §103(a) as being unpatentable over Magee in view of Coudray, et al.

Neither Magee nor Coudray, taken separately or together, discloses or anticipates the invention claimed by Applicants in claim 1 and those claims dependent thereon. Coudray does not disclose or anticipate a lower looping belt having a mailpiece intake section that extends beyond the width of the upper belt adjacent the printing area running from the upstream end towards the downstream end, wherein the mailpiece intake section and the straight section form a wedge-shaped gap resulting in a soft ingest nip so that the tension of the lower belt is controlled by the elasticity of the lower belt wrapped around fixed pulleys to provide a normal force between mailpieces having different thicknesses and the upper belt for providing a friction force to move the mailpiece into the printing area for printing. The mailpiece is held by the upper and lower belts when the mailpiece moves through the printing area, thus preventing skewing and inferior quality printed mailpieces.

Claim 7 has been rejected by the Examiner under 35 USC §103(a) as being unpatentable over Magee applied to claims 1, 4-6 and 8 above and further in view of Wataya, et al. (U.S. Patent No. 5,828,387).

Wataya discloses the following in lines 9-18 of column 5:

> "In FIG. 1, a speed detector **1** is constructed of, e.g., a pickup roller and rotary encoder. A pulse from the rotary encoder is monitored such that a control unit 2 recognizes the speed status in accordance with the monitored phase. The speed detector **1** may be an optical sensor an example of which is disclosed as a laser Doppler type sensor in Japanese Unexamined Patent Publication (Kokai) No. 61-130887. The speed detector **1** is mounted at the side end portion of a feed belt **54** so as not to obstruct the feeding of a cut sheet **51**."

The Examiner is of the opinion that "It would have been obvious to combine the teaching of Wataya, et al. with the transport system disclosed by Magee for the advantage of synchronizing the registration of different colors that are being printed.

Magee has been discussed above.

In claim 7, Applicants claim a velocity measurement mechanism to match the printing speed of the print head to the moving speed of the mailpiece in the printing area. The foregoing is done to match the moving speed of the belts so that the printing speed of the printer matches the moving speed of the mailpiece in the print area so that registered information will be printed on the mailpiece.

Claim 17 has been rejected by the Examiner under 35 USC §103(a) as being unpatentable over Coudray, et al. as applied to claims 9-16 and 18-20 above, and further in view of Wataya, et al.

Wataya discloses the following in lines 9-18 of column 5:

> "In FIG. 1, a speed detector **1** is constructed of, e.g., a pickup roller and rotary encoder. A pulse from the rotary encoder is monitored such that a control unit 2 recognizes the speed status in accordance with the monitored phase. The speed detector **1** may be an optical sensor an example of which is disclosed as a laser Doppler type sensor in Japanese Unexamined Patent Publication

(Kokai) No. 61-130887. The speed detector **1** is mounted at the side end portion of a feed belt **54** so as not to obstruct the feeding of a cut sheet **51**."

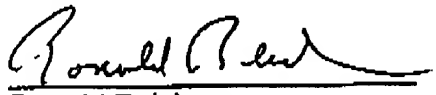
The Examiner is of the opinion that "It would have been obvious to combine the teaching of Wataya, et al. with the transport system disclosed by Magee for the advantage of synchronizing the registration of different colors that are being printed.

Magee has been discussed above.

Coudray, et al. has been discussed above. In claim 17, Applicants claim a velocity measurement mechanism that matches the printing speed of the print head to the moving speed of the mailpiece in the printing area. The foregoing is done to match the moving speed of the belts so that the printing speed of the printer matches the moving speed of the mailpiece in the print area so that registered information will be printed on the mailpiece.

In view of the above, claims 1-20 are patentable. If the Examiner has any questions, will he please contact the undersigned at the telephone number noted below.

Respectfully submitted,



Ronald Reichman
Reg. No. 26,796
Attorney of Record
Telephone (203) 924-3854

PITNEY BOWES INC.
Intellectual Property and
Technology Law Department
35 Waterview Drive
P.O. Box 3000
Shelton, CT 06484-8000